

WHAT IS CLAIMED IS:

1. An electrode paste material for constituting electrode layers of a laminate type dielectric device produced by at least the steps of alternately laminating ceramic layers containing lead as a constituent component and the electrode layers, and degreasing and baking the laminate, wherein said electrode paste material contains CuO as a principal component of a starting material of an electrically conductive material, a solvent, a binder, and a cooperative material consisting of at least one kind of the main components constituting said ceramic layer.

2. An electrode paste material according to claim 1, wherein said cooperative material has substantially the same composition as said ceramic layer.

3. An electrode paste material according to claim 1, wherein the content of CuO is greater than 30 wt% but less than 82.5 wt%, and the content of said cooperative material is greater than 0.5 wt% but less than 25 wt%.

4. An electrode paste material according to claim 3, wherein the content of CuO is not less than 40 wt% but not greater than 77.5 wt%.

5. An electrode paste material according to claim 3, wherein the content of said cooperative material is not less than 1 wt% but not greater than 15 wt%.

6. A method of producing a laminate type dielectric device by at least the steps of alternately laminating ceramic layers containing a lead element as a constituent component and electrode layers, and degreasing and baking the laminate, comprising:

preparing green sheets obtained by shaping a ceramic material into a sheet form, and an electrode paste material containing CuO as a principal component of a starting material of an electrically conductive material, a solvent, a binder, and a cooperative material consisting of at least one kind of the main components constituting said ceramic layer;

applying said electrode paste material to at least one of the surfaces of said plurality of green sheets; and

5 laminating said green sheets, and then conducting degreasing and baking.

10 7. A method of producing a laminate type dielectric device according to claim 6, wherein the application of said electrode paste material is made to both surfaces of said green sheets, and said electrode paste material is brought into mutual contact in said lamination step.

15 8. A method of producing a laminate type dielectric device according to claim 7, wherein a metal foil having electric conductivity is interposed between said electrode paste materials.

9. A method of producing a laminate type dielectric device according to claim 6, wherein said cooperative material has substantially the same composition as said ceramic layer.

20 10. A method of producing a laminate type dielectric device according to claim 6, wherein the content of CuO is greater than 30 wt% but less than 82.5 wt%, and the content of said cooperative material is greater than 0.5 wt% but less than 25 wt%.

25 11. A method of producing a laminate type dielectric device according to claim 10, wherein the content of CuO is not less than 40 wt% but not greater than 77.5 wt%.

30 12. A method of producing a laminate type dielectric device according to claim 10, wherein the content of said cooperative material is not less than 1 wt% but not greater than 15 wt%.

35 13. A method of producing a laminate type dielectric device according to claim 6, wherein said ceramic layer is mainly made of an oxide having a Pb(Zr, Ti)O₃ type perovskite structure.

14. An electrode paste material for constituting

electrode layers of a laminate type dielectric device produced by at least the steps of alternately laminating ceramic layers containing a lead element as a constituent component and the electrode layers, and degreasing and
5 baking the laminate, wherein said electrode paste material contains CuO and Cu as principal components of a starting material of an electrically conductive material, a solvent, a binder, and a cooperative material consisting of at least one kind of the main components
10 constituting said ceramic layer.

15. An electrode paste material according to claim 14, wherein said cooperative material has substantially the same composition as said ceramic layer.

16. An electrode paste material according to claim 14, wherein the total content of CuO and Cu is greater than 30 wt% but less than 82.5 wt% calculated to CuO in terms of the ratio of the molecular weight, and the content of said cooperative material is greater than 0.5 wt% but less than 25 wt%.

20. An electrode paste material according to claim 16, wherein the total content of CuO and Cu is not less than 40 wt% but not greater than 77.5 wt% calculated to CuO in terms of the ratio of the molecular weight.

25. An electrode paste material according to claim 16, wherein the content of said cooperative material is not less than 1 wt% but not greater than 15 wt%.

30. A method of producing a laminate type dielectric device by at least the steps of alternately laminating ceramic layers containing a lead element as a constituent component and electrode layers, and degreasing and baking the laminate, comprising:
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preparing green sheets obtained by shaping a ceramic material into a sheet form, and an electrode paste material containing CuO and Cu as principal components of a starting material of an electrically conductive material, a solvent, a binder, and a cooperative material consisting of at least one kind of

the main components constituting said ceramic layer;
applying said electrode paste material to
at least one of the surfaces of said plurality of green
sheets; and

5 laminating said green sheets, and then
conducting degreasing and baking.

20. A method of producing a laminate type
dielectric device according to claim 19, wherein the
application of said electrode paste material is made to
10 both surfaces of said green sheets, and said electrode
paste material is brought into mutual contact in said
lamination step.

21. A method of producing a laminate type
dielectric device according to claim 20, wherein a metal
15 foil having electric conductivity is interposed between
said electrode paste materials.

22. A method of producing a laminate type
dielectric device according to claim 19, wherein said
cooperative material has substantially the same
20 composition as said ceramic layer.

23. A method of producing a laminate type
dielectric device according to claim 19, wherein the
total content of CuO and Cu is greater than 30 wt% but
less than 82.5 wt% calculated to CuO in terms of the
25 ratio of the molecular weight, and the content of said
cooperative material is greater than 0.5 wt% but less
than 25 wt%.

24. A method of producing a laminate type
dielectric device according to claim 23, wherein the
30 total content of CuO and Cu is not less than 40 wt% but
not greater than 77.5 wt% calculated to CuO in terms of
the ratio of the molecular weight.

25. A method of producing a laminate type
dielectric device according to claim 23, wherein the
35 content of said cooperative material is not less than 1
wt% but not greater than 15 wt%.

26. A method of producing a laminate type

dielectric device according to claim 19, wherein said ceramic layer is mainly made of an oxide having a Pb(Zr, Ti)O₃ type perovskite structure.